Japan-ASEAN Science, Technology and Innovation Platform (JASTIP)
WP3: Bioresources and Biodiversity

Mamoru KANZAKI¹ and Takashi WATANABE²
¹Graduate School of Agriculture / ²Research Institute for Sustainable Humanosphere
Kyoto University

2017 GBIF Asia Regional Meeting
13-14 June, 2017, Hanoi, Viet Nam
HOA BINH HOTEL

Contact Address: mkanzaki@kais.kyoto-u.ac.jp
Japan Science and Technology Agency

SCICORP: Strategic International Collaborative Research Program

CHIRP: Collaboration Hubs for International Research Program

Started from 2015
5-year project

Yasuyuki Kono
Kyoto University

Akira Takagi
Kyoto University

21 Steering committee
From Kyoto University,
The University of Tokyo,
Osaka University, Hokkaido University,
AIST, NSTDA, KMUTT, LIPI, AUN

Joint Laboratories

Bioresources and Biodiversity
Indonesian Institute of Sciences (LIPI), Indonesia

Disaster Prevention
Malaysia-Japan International Institute of Technology (MJIT), Malaysia
Three Missions of JASTIP

1. Implementation of advanced international joint research
2. Promotion of societal implementation of research achievements
3. Fostering human resources
JASTIP WP3 Joint laboratory

Bioresources and Biodiversity Studies
- Autoclave Class N Sterilization
- Bio Safety Cabinet Class II Type A2
- Multi-Stack Reciprocating Shaker
- Incubator digital
- Refrigerated centrifuge 5424
- 4 x 8-tube PCR strip rotor, include Lids
- Rotary evaporator IKA RV10 Digital V

RC Biomaterials

RC Biology

Wood Material Studies

Biochemical Studies
Platform Connecting Japan and ASEAN

Japan
- Kagoshima Univ.
- Hokkaido Univ.
- Nat. Museum of Nat. & Sci.
- Kyoto Univ.
- Jikei Univ.
- Tokyo Metr. Univ.
- Kyoto Univ. Primate R.I.
- Fukuyama Univ.
- Nice Corporation

ASEAN
- LIPI, Bogor Botanical Gardens
- Mulawarman Univ.
- Welcome New partners

WP1, WP2, WP4
- Environment & Energy,
- Disaster Prevention

Joint Laboratories

Global Biodiversity Information Facility

ASEAN Biodiversity Center
Researches in Joint Laboratories

**WP3 Research Activities**

We have three research clusters.

- **Biodiversity cluster** focuses on the biodiversity exploration/prospection, monitoring, and conservation.
- **Biomaterials cluster** focuses on the development of innovative utilization of biomaterials and biodiversity.
- **Dissemination cluster** focuses on the utilization and diffusion of innovative technology to the society.

These three clusters are flexibly collaborate each other and also collaborate with WP3 platform institutions.
Biodiversity Study in JASTIP WP3

- Biological resource research based on ownership of the bio-diversity
- Strengthening of the biological diversity information database and depository

- Genome Resource Bank Centre as the Backbone of Future Indonesian Wildlife
- Plant diversity of Kalimantan: Profiling and Mapping of habitat loss
- Bioprospecting of plant resources in South East Asia to produce highly value-added products
Bioresource Utilization Study in JASTIP WP3

R&D into tropical plant breeding, conversion, conservation and utilization

- Conversion of tropical biomass into functional materials, adhesives, chemicals and fuels
- Screening of useful plant species for material production
- Control of invasive wood-attacking insects
- Bioremediation using tropical microbes and enzymes
- Eco-house and wood architecture with high safety
- Plant breeding and revegetation of deteriorated land

Platinum Teak

Candlenut shell (Aleurites moluccana) #Kemiri

Design the bait system:
- Bait toxicant: combination of slow-acting toxicant and attractant compound
- Bait trap: attractant compound
- Through bioassay in laboratory and semi-field test, a proper design of bait system could be developed
Dissemination of Innovation in JASTIP WP3

- Development and Diffusion of Innovation for Conservation and Sustainable Utilization of Peat Lands in Indonesia: An Ecosystem-Based Approach
Symposia and Workshops

1st JASTIP Bioresources and Biodiversity Lab WS
Kyoto, February 17, 2016

2nd JASTIP Bioresources and Biodiversity Lab WS
Kyoto, January 23, 2017

JASTIP WP3 Kick-off Symposium
Jakarta, June 10, 2016

2nd JASTIP Symposium
Jakarta, June 11, 2016

Joint Seminar
“Utilization of Sago Ecosystem for Peatland Restoration”
Jakarta, 2016 August 11th – 12th

Joint School & Symposium
“Humanosphere Science School 2016”
“The 6th International Symposium for Sustainable Humanosphere”
Jakarta, 2016 August 11th – 12th
Coming Symposium

Will followed by a symposium on

“ASEAN-Japan Collaboration for Biodiversity Exploration and Utilization”
Plan for 2017

• Go forward the ongoing joint researches
• Inclusion of Myanmar and other ASEAN countries into the platform
• Widen the multilateral collaboration through JASTIP-NET researches
• Strengthen the collaboration with Industry Sectors
• Strengthen the collaboration with SATREPS, Joint Usage / Research Center activities and other international programs
• Strengthen international networks on biodiversity and bioresources
Call for JASTIP-Net 2017
Application deadline: July 31, 2017 17:00
In order to expand and strengthen the JASTIP activities, we call for research partners who are willing to join our research networks (JASTIP-Net). We are looking for researchers who are ready to parti...

Details on
- Bioprospecting of plant resources in ASEAN countries to produce highly value-added products
  Kasetsart University, LIPI, Kyoto University

- Development of integrated process for conversion of sugarcane trash to bioethanol and value-added chemicals
  LIPI, Chulalongkorn University, Kyoto University (WP2 & 3)

- Decolorization and detoxification of synthetic dyes and PAHs by tropical fungi from Indonesia and Thailand
  LIPI, NSTDA, Kyoto University